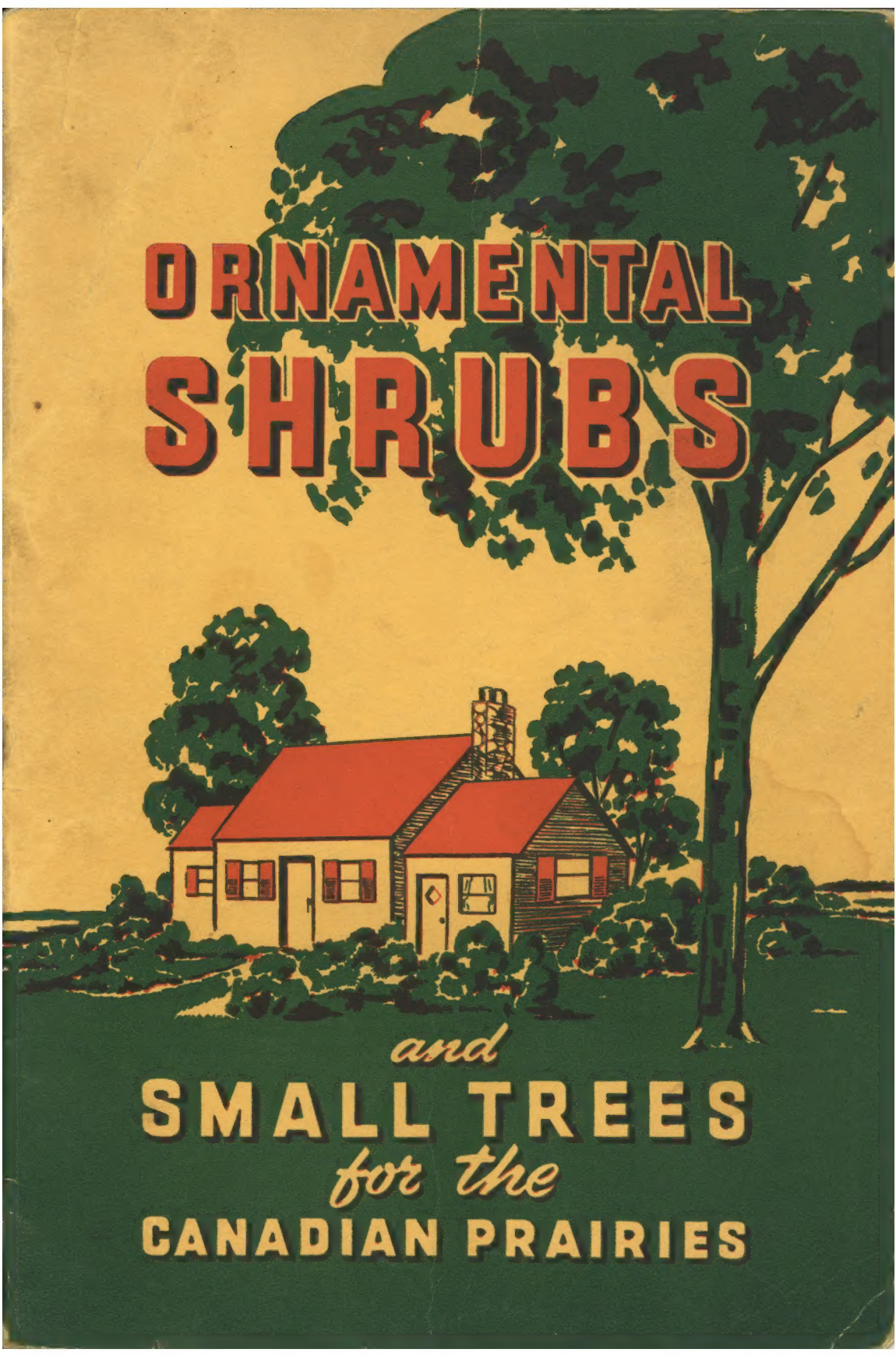




# ORNAMENTAL SHRUBS

*and*  
**SMALL TREES**  
*for the*  
**CANADIAN PRAIRIES**

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# ORNAMENTAL SHRUBS AND SMALL TREES FOR THE CANADIAN PRAIRIES

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BULLETIN No. 4

LINE ELEVATORS FARM SERVICE  
763 GRAIN EXCHANGE BUILDING  
WINNIPEG, MANITOBA

April, 1944

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And hither throngs of birds resort:  
Some, inmates lodged in shady nests,  
Some, perched on stems of stately port  
That nod welcome to transient guests.

—WORDSWORTH

# ORNAMENTAL SHRUBS AND SMALL TREES FOR THE CANADIAN PRAIRIES

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S. W. EDGECOMBE

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## INTRODUCTION

**I**T seems strange that society insists upon surroundings made attractive by trees, shrubs, flowers and lawns for institutions housing criminals, juvenile delinquents and mental defectives, while stark and ugly nakedness is good enough for many of our farm homes and country schools. It is true that many institutions have plenty of cheap labour and others manage to secure limited amounts of taxpayers' money for the purpose of beautifying their grounds. The farmer, on the other hand, must provide his own labour, and his first consideration is to earn a living. But we should not take shelter behind mere excuses, and cannot escape the fact that many farm homes, and a few schools, are attractive. Why not more of them? With very little expense and comparatively little trouble, houses that look like run down box factories can be transformed into attractive homes. Surroundings now shunned by all living things except men and women can, in a few years, become bird sanctuaries.

This bulletin has been prepared to serve as a guide in the selection, planting and care of shrubs, and to stimulate a wider interest in the beautification of rural dwellings and school grounds in the Prairie Provinces. There is at least one other admirable Canadian publication on this subject; namely, "Ornamental Shrubs and Woody Climbers More Commonly Used For Landscape Purposes Throughout Canada" by R. W. Oliver and M. B. Davis.\*

## USE OF SHRUBS IN HOME PLANTINGS

### GENERAL CONSIDERATIONS

Shrubs require a certain amount of shelter. Buildings provide some protection; but, as a rule, windbreaks or shelterbelts of larger quick-growing shrubs or trees should be established before any extensive planting of ornamentals is undertaken. Quick-growing trees and certain large shrubs are distributed to farmers, free of charge, from the

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\*Dominion Department of Agriculture, Farmers' Bulletin 100

Dominion Forest Nursery Station at Indian Head, Saskatchewan. Evergreen seedlings may be purchased from the Indian Head Nursery, but ornamental shrubs can only be obtained from commercial nurseries. With any luck—which really means good management a two-year-old shelterbelt will provide enough protection for newly planted ornamental shrubs.

It is essential to remember that shrubs cannot be planted and then left to Providence. Proper maintenance is necessary and requires comparatively little labour.

Space limitation forbids a detailed discussion of the various ways in which shrubs may be used in home plantings. A few general principles will suffice and, after all, details of arrangements depend very largely on the positions of buildings and shelterbelts and on individual taste and preference. We shall consider, briefly, four main arrangements, any or all of which may be adopted on an individual farm.

## BOUNDARY PLANTINGS

Shrubs may be used as boundary plantings to obtain privacy from the outside view, to screen unsightly objects and to give a measure of unity to the garden plan. When thus employed, they serve as a frame and background for garden or lawn. On the farm, large shrubs arranged in groups with smaller shrubs in front and between provide an appropriate boundary and also produce a pleasing variation in the skyline. Possibilities on the small city property are more limited in that fewer shrubs can be used.

In planning a boundary plantation it is important to remember that the effect desired is that of the whole foliage mass, so the shrubs chosen should be rapid growers, with average spreading habit and mid-green in colour; emphasis being placed on mass effect rather than beauty of individual plants. The height of the boundary planting will depend upon the effect desired, and shrubs must be selected accordingly. Likewise, while bloom is important and attractive, it should be a secondary consideration since the blossoms last, at best, but a short time.

## SPECIMEN SHRUBS

The second use to which shrubs may be put is that of specimens planted on specially selected locations for their individual beauty, or as accent points in the garden. When used in this way they stand out singly and lend emphasis to the entire planting scheme. Specimen shrubs should be selected with care since they must be neat, more or

less erect, or with a gracefully drooping habit of growth, or they must have some particularly attractive feature such as bloom, vari-coloured foliage or ornamental fruit (berries, etc.).

Caution must be observed in placing specimen shrubs. They should not be planted just anywhere, or scattered about the lawn in front of the house. Finally, it is better to plant too few than too many.

## ABOUT THE HOUSE

The average prairie home will benefit most when shrubs are planted around the house or nearby buildings. The old slogan, "It's not a home until it's planted," is still fundamental. Good landscaping requires planting so as to have masses of green foliage around the house without obscuring the front from outside view and, at the same time, shutting off the inmates from whatever outside view there may be. On small properties, groups of neat shrubs of average spreading habit and medium to dark green foliage will break the lines of the house and tend to 'tie' it to the ground. This gives an appearance of permanence which is desirable and cannot be obtained with other plant material, such as flowers.

A house that is tall and narrow requires tall shrubs, such as honeysuckle, in the foundation planting. These should be at the corners and sides, but not directly in front. Small shrubs may be grown on either side of the doorstep, but the desired effect may easily be spoiled unless care and judgment are exercised.

A wide rambling house requires smaller shrubs which tend to break the lines. Conifers which are pyramidal in shape, such as spruce, are useful for this type of dwelling provided they are not planted too close together or too close to the house itself. The old idea of having the house barely visible behind the foundation planting is no longer popular. Instead, shrubs and trees should be planted so that the most attractive aspects of the house are clearly visible and the shrubs are mere incidents in the whole landscape picture. Do not plant a shrub or tree near the house that will, when full grown, be taller than you want it to be. It is almost impossible to keep many of them pruned back, and the result is that the older plantings become very unsightly. Instead, select each shrub for the particular location. If you want a five-foot shrub under a particular window, select one that will grow to that height and not one that will reach ten feet. Evergreen forest trees such as spruce, fir, etc., should not be used for foundation plantings. They are extremely attractive when young, but within a very short time they become overgrown and must be cut out.



COMMON LILAC (See page 27).  
(Courtesy of Professor K. W. Gordon.)

### ABOUT THE GARDEN

Not the least important function of ornamental shrubs is to provide backgrounds and partitions in the garden. This is really "boundary plantations" over again; but on a small scale. When designing plantations of this kind, it is important to think in terms of full grown shrubs. That is to say, think ahead not two or three years, but ten or twelve.

The larger shrubs, when fully grown, will, by virtue of their height, catch the eye and will serve as 'dominants.' They must not be too numerous, or the desired effect will be lost completely. As a rule, shrubs that are tall, erect, with a stiff type of growth, coarse textured foliage and are somewhat different from the average in colour of foliage or bark are used as dominants. The lilac is quite typical of this class.

Height in any planting—or in anything else—is relative. Thus shrubs placed between or among the dominants are termed 'fillers' because they are not as tall or as conspicuous from other points of view, such as foliage, bark or other special characteristics.

Just as undulating country is usually more scenic than a level plain, so gracefully curved lines in landscape plantings are more appealing



than straight lines. In both cases, the elements of surprise and expectancy are introduced. What is held in store round the next curve? This is the justification for using special shrubs as specimens or in dense masses in the garden. On the farm, where considerable areas can be planted, shrubs should be arranged so as to create interest. An informally curving border will provide bays for the accommodation of herbaceous perennials or annuals. Dominant and filler shrubs should be used in all border plantings, but care should be exercised to avoid overdoing contrasts. Too much contrast is disturbing rather than restful, so it should be used sparingly and the shrubs should be blended according to the texture and colour of foliage.

The term 'texture' is concerned with the relative coarseness or fineness of twigs and foliage. Coarse textured shrubs tend to be dominant while fine textured plants blend with their surroundings more readily. As a rule, it is wise to develop the background with coarse textured plants and to build up the foreground with plants of finer texture. Judicious use of the latter type in a small garden makes the plantation appear larger than it really is.

Colour of foliage is extremely important in shrubs. Dark blue-green and purple coloured shrubs should be planted in the background and the bright coloured ones in the foreground. Bloom, in itself, is of secondary importance in relation to blending different types in belts or groups.

Briefly, the important points in the arrangement of shrub plantations are height, habit of growth (i.e., erect, spreading, or drooping), texture and foliage colour. When these conditions have been satisfied, bloom, autumn colour and, finally, winter colour, particularly of fruit and bark, are features which may be employed to complete the picture. Autumn and winter colour effects are particularly important in the Prairie Provinces where winter is our 'dominant' season!

## **METHODS OF PLANTING AND MAINTENANCE OF PLANTATIONS**

### **SOIL PREPARATION**

This is the first and by no means the least important step. Shrubs, in general, require a thoroughly prepared, well drained soil fairly rich in plant nutrients. As a rule, shrubs should be planted on land summer-fallowed the year before to insure freedom from weeds and a reserve of moisture. They will die or, at best, make very poor growth in poorly prepared or weed infested soil.

## TIME OF PLANTING AND CARE OF PLANTS ON ARRIVAL

Having completed the planting plan and soil preparation, the next step is to secure recommended kinds and varieties of shrubs from a reliable nursery. Planting may be done in the late fall in favourable seasons; but, in general, it is preferable to order the plants early in the spring and to plant them as soon as the ground can be worked.

If the plants arrive before the ground is prepared, they should be taken out of the bundle and 'heeled in' until they can be planted. Heeling in is a simple process. First a trench is dug on a well drained spot, preferably on the north side of a building. The north edge of the trench is left perpendicular and the south side is sloped gently from the bottom. The shrubs are separated from each other, set in the trench with the tops to the south and the roots are then covered with moist soil. If a shady location is not available, it is well to shade the tops with straw, or some other covering, to protect them from the sun until they are planted.

Shrubs which arrive in a somewhat dried out condition can often be revived by placing them in cold water for a few hours. Dried out evergreens are worthless, since they cannot be revived. When the shrubs are unpacked, or handled during planting, it is very important to protect them from the sun and from the wind. A still, moderately cool dull day is the best protection; but, since this cannot be made to order, it will often be advisable to wrap damp pieces of burlap around the roots. Even better is the practice of mixing soil with water in a tub or pail and plunging the roots into the muddy mixture until everything is ready for the actual planting operation. If the fine rootlets are allowed to dry out, death will almost certainly be the result.

## PLANTING

Most prairie soils are very compact and this condition is apt to retard the root growth of newly planted trees and shrubs. For this reason it is important, when planting, to dig large holes. For shrubs, the holes should be not less than 18 to 24 inches in diameter and 12 to 18 inches in depth. The top soil should be worked into the bottom of the hole where the roots will be. It is well to observe the old established rule of planting shrubs two or three inches deeper than they grew in the nursery. It is quite easy to detect the nursery ground line by examining the base of the stem or stems.

The shrub should be set in the hole and soil worked firmly around the roots. As soon as the roots have been covered with a one- or two-

inch layer, the soil should be tramped firmly, and this process should be repeated until all the soil is replaced. The practice of putting well rotted barnyard manure in the hole is not a good one, and may result in the death of the plants.

If the soil on the location selected for planting is poor, good topsoil from elsewhere should be used for re-filling the planting holes. It is a very good practice to place thoroughly soaked acid peat moss in the hole after the roots have been well covered with soil. This tends to neutralize the soil, when it is alkaline, and it has been found to improve the texture, aeration and water holding capacity, resulting in more vigorous growth of the shrubs. Acid peat is particularly beneficial in heavy clay soils. From one to three gallons of peat for each shrub should be used, the amount depending upon the soil type. Heavy soils require more than do light ones.

## PRUNING

All shrubs should be pruned when they are planted, because the root systems are greatly reduced when they are dug out of the nursery. Pruning helps to adjust the above ground parts to the reduced root system and tends to promote the development of vigorous new shoots. From one-third to one-half of the top should be cut away. A good plan is to remove the weaker stems, when there are several, and then to cut about one-third from the strong ones. The roots do not need pruning, but broken or damaged ones should be removed.

When shrubs are full grown it is advisable, with most of them, to cut out about one-third of the older stems at the ground level. This encourages the development of new shoots and tends to keep shrubs bushy at or near the ground. A shrub with long stems and little or no foliage near the ground is not a thing of beauty. Flat pruning near the top makes shrubs unsightly and never stimulates new growth near the ground. With most shrubs, good maintenance calls for annual pruning.

The best time for annual pruning is in the spring just before the buds swell. A few shrubs bloom on last year's wood. These should be pruned when blossoming is over. Fall pruning is likely to result in winter injury around the cuts.

Evergreens are seldom pruned when planted, but subsequent annual pruning is often practiced in order to develop well shaped plants. The method consists in pinching off the new unwanted buds as they appear in early summer.

## WATERING

In dry springs, especially, it is well to water newly planted shrubs liberally. Heavy soakings are preferable to light frequent waterings. Also, when the fall has been dry, a heavy soaking just before freeze-up will afford some protection against winter injury.

## FERTILIZERS

Detailed information on the response of shrubs to artificial fertilizers on different types of soil is not available. Generally speaking, however, it is safe to say that moderate use of artificial fertilizers will be beneficial. Ammonium phosphate containing a high proportion of nitrogen is a suitable fertilizer for most conditions. Applications should be made sparingly. Excessive amounts in humid areas will result in unduly rapid growth and increased winter-killing, while under drought conditions plants may be stunted by unduly liberal applications. The amount to use will vary with the age and size of the shrub and with the amount of available moisture. Roughly speaking, application should vary from one-half pound to one pound per annum per 25 square feet. The best time to fertilize is in late fall or early spring. When shrubs are well established, well rotted barnyard manure, dead leaves or other plant refuse may be worked into the surface soil with advantage.

## PROPAGATION

Most farm and home gardeners prefer to purchase shrubs from a nurseryman. However, propagation by means of cuttings, layering, grafting and budding can become an interesting hobby. Those interested should apply for information to the Division of Horticulture, Central Experimental Farm, Ottawa, or to any Dominion Experimental Station or Provincial Department of Agriculture. In the text, below, comments are made on the propagation of many of the shrubs.

## RECOMMENDED SHRUBS

The remainder of this bulletin is occupied by descriptions of shrubs known to be adapted to a part or all of the well settled areas in the Prairie Provinces. It is quite impossible for the reader to gain a clear impression of the appearance of a plant by merely reading a description. Photographs are more useful than descriptions, but it has proved impossible to secure good pictures of all shrubs included in the list. Never-



theless, it will be quite possible for the prospective planter to make an intelligent selection by means of the information provided herein.

For convenience, the shrubs are listed alphabetically by common names of species, when there is only one in a genus, and common names of genera when two or more species are included. As with all other plants, there is a good deal of confusion in connection with common names. For this reason, scientific names are included. When ordering shrubs from a nursery, it is wise to indicate the scientific name and one or more common names as well.

### BARBERRIES (*Berberis* spp.)

The barberries are widely grown as medium or low hedges and specimen shrubs. They have attractive flowers and foliage although they are spiny. The yellow wood makes them easy to identify.

#### AMUR BARBERRY (*Berberis amurensis*)

Amur Barberry is quite hardy throughout the prairies but is not a desirable plant for the shrubbery.

#### COMMON OR EUROPEAN BARBERRY (*Berberis vulgaris*)

Common Barberry is very hardy but *should not be planted under any circumstances* since it spreads the black stem rust of wheat. Any bushes now growing in plantings should be destroyed.

#### JAPANESE BARBERRY (*Berberis Thunbergii*)

Japanese Barberry is generally hardy in the southern regions but is only semi-hardy in the northern sections of the prairies. The bright red fruit is very attractive. *B. Thunbergii* var. *atropurpurea* has bronzy red foliage and is probably hardier than the parent form.

#### VERNA BARBERRY (*Berberis Vernae*)

A small low growing barberry which has small holly like leaves. The small yellow flowers are followed by red berries. Unfortunately, Verna Barberry is not as hardy as Japanese Barberry.

### BUCKTHORNS (*Rhamnus* spp.)

The buckthorns are useful in the shrub border although they are not as conspicuous in leaf or flower as are many other shrubs. The Common Buckthorn (*Rhamnus cathartica*) is the alternate host of crown rust of oats, so it *should not be planted under any circumstances*.

The berry-like fruits of all species are attractive in appearance and are relished by a wide variety of birds.

#### ALDER-LEAVED BUCKTHORN (*Rhamnus alnifolia*)

This is a low, spreading, compact native shrub about four feet in height. The flowers are small and inconspicuous; but its large, bright green leaves are attractive and it is very hardy. One serious drawback to the use of this shrub is its susceptibility to rust which may cause the leaves to fall in early summer. It also suckers badly.

#### GLOSSY BUCKTHORN (*Rhamnus Frangula*)

The name, Glossy Buckthorn, is quite appropriate because the leaves are shiny. The plants are medium in height and somewhat slender in habit of growth. The leaves turn yellow in autumn, and the berries turn from red to purple-black. It is not sufficiently hardy for planting in the more northerly districts and, indeed, is risky anywhere in the Prairie Provinces.

Two other species, namely; *R. davurica* and *R. tinctoria* have been successful at the Dominion Experimental Station, Morden, Manitoba.

#### BUFFALOBERRIES (*Shepherdia* spp.)

The buffaloberries belong to the family *Elaeagnaceae* as, also, do the Sea Buckthorn, Russian Olive and Silverberry, described later on. These shrubs all have striking silvery leaves, and are useful as specimen plants and in hedges or mass plantings. The striking foliage makes pleasing contrasts with that of other nearby shrubs.

#### SILVER BUFFALOBERRY (*Shepherdia argentea*)

This shrub is also known as Buck-Brush, Bullberry, Rabbitberry and Beef-Suet-Tree. It grows to a height of about ten feet. The silvery leaves, especially on the underneath sides when the plants are young, are especially attractive. The fruits, which are retained on the branches after the leaves have fallen, are small vivid red or amber yellow berries, attractive in appearance and relished by at least twelve species of birds --as well as by human beings who enjoy the jelly which can be made.

#### RUSSET BUFFALOBERRY (*Shepherdia canadensis*)

Russet Buffaloberry provides a good example of confusion in common names. It is also called Squashberry, Soopolallie, Soapberry,

Brue and Bearberry (The name Bearberry is correctly applied to an entirely different plant). It is a native species, smaller than the Silver Buffaloberry, attractive; but difficult to transplant.

### BURNING BUSHES (*Euonymus* spp.)

#### DWARF BURNING BUSH (*Euonymus nanus*)

A shrub which includes both upright and straggly, flopping forms. It is very hardy, and adapted to partial shade, especially in a rock garden. A purplish hue is characteristic of the very narrow leaves in the autumn, and the seed pods open, displaying the scarlet seeds within. Sometimes the leaves remain evergreen, especially in sheltered locations.

#### BURNING BUSH (*Euonymus Maackii*)

A shrub which grows to five or six feet in height, has broad willow-like leaves, yellowish flowers and pinkish-orange coloured fruits. The latter are very ornamental after the leaves have fallen.

#### OTHER BURNING BUSHES

Winged Euonymus (*E. alatus*), Wahoo (*E. atropurpureus*) and, also, *E. Hamiltonianus* and *E. europaeus* are not reliably hardy in the northern sections of the Prairie Provinces, although they may be quite satisfactory in southern areas.

### CARAGANAS (*Caragana* spp.)

Eight different kinds of caragana are worthy of consideration. Generally speaking, they are the hardiest and most drought resistant shrubs available for prairie planting.

#### COMMON CARAGANA (*Caragana arborescens*)

In the Prairie Provinces, the best known of all hedge plants. It is highly drought resistant and is used in shelter belts extensively, as it produces a desirable thick growth close to the ground. Also, it is of great value as a snow break for the shelter belt. When used as a snow break, a single row should be planted about 75 to 100 feet from the main shelter belt. Plants should be spaced about two feet apart.

Flowers, vegetables and fruits cannot compete successfully with the aggressive caragana root system, so they should not be planted within six or eight feet of a caragana hedge or belt.

Moderate irrigation will not harm the Common Caragana, but flooding for more than about two days will kill it.

When used as a hedge plant, it should be cut back to within a few inches of the ground at planting time and, subsequently, trimmed once or twice each season. The trimming should be done in late June and again in the late summer, and should be about two inches above the previous trimming height in order to avoid undue density along the top of the hedge. If left unpruned, hedges become 'leggy' and unsightly and quite unsuitable for any purpose save that of a screen.

Most discerning home owners are discarding Common Caragana hedges and are planting other shrubs, such as *Cotoneaster lucida*, which are more attractive and which compete less aggressively with lawn grass and other garden plants. Grown individually, however, it makes an attractive tall lawn specimen if left untrimmed. It is also commonly used as a stock on which to graft other *Caragana* species, notably *C. pendula* and *C. arborescens Lorbergii*.

#### FERNLEAF CARAGANA (*Caragana arborescens Lorbergii*)

A very hardy, graceful and striking shrub. It is usually grafted on Common Caragana because it does not breed true from seed. It grows to a height of about six feet, has dainty, narrow, feathery leaflets. It is useful as a specimen shrub or for accent points.

#### WEeping CARAGANA (*Caragana arborescens pendula*)

Weeping Caragana has hanging branches, so it must be grafted high on Common Caragana. Like Fernleaf Caragana, its use is restricted to focal points in the landscape planting.

#### RUSSIAN PEA-SHRUB (*Caragana frutex*)

Other names for this plant are Large-Flowered Pea-Shrub, and Woody Caragana. It is very hardy, but somewhat difficult to transplant. It is effective when grown with other shrubs in mass plantings, but is not a good hedge plant because the snow bends it down, and thus it is unshapely in spring until new growth is well advanced. Due to an undesirable tendency to produce suckers, this species is often propagated by grafting on Common Caragana. The flowers are large and yellow, and the leaves a dark green.

#### LITTLE LEAF PEA-SHRUB (*Caragana microphylla*)

A very graceful, hardy, six-foot shrub with twigs which are clothed with fine silky hairs. The flowers are large and bright yellow.



PIGMY CARAGANA (See below).  
(Courtesy of Mr. Harry Graves.)

#### PIGMY CARAGANA (*Caragana pygmaea*)

Many gardeners favour this dwarf, very hardy, shrub for low box hedges. It rarely reaches three feet in height, and needs but little trimming unless a very low hedge is desired. Hedge borders six to twelve inches in height, and very neat, are maintained with but little trouble. It is also useful as a specimen plant in the shrub border since it has quite showy yellow flowers and fine leaves. A graceful small tree can be grown by grafting Pigmy Caragana high on Common Caragana.

*Caragana aurantiaca erecta* is quite similar, but has orange red flowers and grows to a somewhat greater size.

#### SPINY CARAGANA (*Caragana spinosa*)

The chief value of Spiny Caragana is as a low growing decorative shrub; but it is also used successfully as a low hedge plant. It may attain a height of four feet, is very hardy and the flowers are larger than those of Common Caragana. The branches are weak and spiny.



#### (CINQUEFOIL) SHRUBBY CINQUEFOIL (*Potentilla fruticosa*)

A shrub with strange adaptations. It is a widely distributed native and, though it is very common in peat bogs, it is drought resistant and is found growing on hillsides on the prairies. It grows to a height of two feet or more, has bright yellow flowers which first appear in June and continue throughout the summer. It has attractive greyish green foliage which is silky hairy.

Shrubby Cinquefoil will withstand some shading, will thrive in rock gardens and may be used for low hedges and mass plantings.

In addition to the parent species, two varieties are sometimes grown. One, *P. fruticosa* var. *Friedrichsenii*, has more profuse flowering habits and larger growth. The other, *P. fruticosa* var. *dahurica*, has flowers which resemble single white roses.

#### COTONEASTERS (*Cotoneaster* spp.)

The cotoneasters are, for Western Canada, first class ornamental shrubs. They are dependable, attractive, and may be used in the shrub border or for hedges. They provide particularly pleasing effects late in the season by virtue of their bright red autumn tints and dark coloured berries.

##### PEKING COTONEASTER (*Cotoneaster acutifolia*)

This outstanding ornamental shrub is very hardy and will thrive on relatively poor soil if grown in full sunlight. It is also known as Sharp Leaf Cotoneaster and as Siberian Privet. Under favourable conditions it may attain a height of five feet, but seldom exceeds four. The leaves are clear, glossy and dark green in colour, and become conspicuously red in the autumn. The berries are black and remain on the bushes all winter. It makes a good hedge, but is less suited to this purpose than is Siberian Cotoneaster which is described below.

##### EUROPEAN COTONEASTER (*Cotoneaster integerrima*)

European Cotoneaster is very hardy and dependable. It has a more spreading habit of growth than has Peking Cotoneaster. The leaves are dark green, smooth above, whitish or greyish woolly beneath and turn bronze red in the autumn. The small inconspicuous flowers are followed by red berries which persist well into the winter. The twigs are brick red and so quite conspicuous in the winter. The foliage is too unattractive, except in the autumn, to justify recommending this species

for hedge planting; but its attractive berries justify its inclusion in shrub borders or mass plantings.

#### SIBERIAN COTONEASTER (*Cotoneaster lucida*)

The growth habit of Siberian Cotoneaster is very similar to that of Peking Cotoneaster, but the former is somewhat smaller. The leaves are quite large, shiny above, hairy beneath, and turn red in the autumn. The small pinkish flowers are followed by black berries. This plant withstands trimming and produces, of all Cotoneasters, perhaps the most desirable, hardy, medium sized hedge. Its pleasing autumn colour, habit of growth, hardiness and black berries make it a useful hedge plant.

#### OTHER COTONEASTERS

Four other cotoneasters are sometimes found in prairie landscape plantings. Two of these, Creeping Cotoneaster (*C. adpressa*) and Himalayan Cotoneaster (*C. frigida*), are not very hardy. Indeed, the latter is decidedly tender. The former has some value in rock gardens if it is well sheltered. Many-flowered Cotoneaster (*C. multiflora*) is very handsome, but not very dependable. The fourth species, *C. melanocarpa*, grows up to four feet in height, is upright in growth and has pinkish nodding flowers and black berries. It is suitable for shrub borders.

#### CRABAPPLES (*Malus* spp.)

There is a place in the large landscape planting for several of the ornamental crabapples. Some of them are among the most gorgeous of the spring flowering trees. The fruits are highly esteemed by a wide variety of birds and mammals.

#### SIBERIAN CRAB (*Malus baccata*)

Siberian Crab is very hardy in the southern and central portions of the Canadian prairies. Its chief value lies in the lovely spring bloom. Trees may attain a height of 25 feet and an age of 30 years or more. The fruits are relished by partridges and prairie chickens and make excellent jelly.

#### CHINESE CRAB, COMMON CRAB (*Malus prunifolia*)

A hardy crabapple which produces fruit of edible quality.

#### REDVEIN CRAB (*Malus pumila Niedwetzkyana*)

This species is too tender for prairie conditions, but many of its hybrids are valuable. They are characterized by a reddish colour in flowers, leaves, twigs and fruits. The Horticultural Division of the Central Experimental Farm, Ottawa, has produced a series of "Rosy-bloom" crabs. Some of the best of these are Seugog, Dauphin, Erie and Nipissing. Promising material is also under test at the Dominion Experimental Station, Morden, Manitoba.

#### CURRENTS (*Ribes* spp.)

##### MOUNTAIN CURRENT (*Ribes alpinum*)

Mountain Current, or Alpine Current, is a hardy shrub, two or three feet in height, that withstands shade well. The small flowers vary in colour from greenish to purple. They and, later, the red berries are borne in elongate clusters. This shrub is useful as a low hedge plant since it has a compact growth, though somewhat coarse foliage.

##### FLOWERING CURRENT (*Ribes aureum*)

Flowering Current, Slender Golden Current, or Missouri Current is a very hardy native species. It withstands a measure of drought, but also does well in moist locations sometimes reaching a height of six feet. Its chief value is as an individual shrub and for use in mass plantings. It tolerates moderate shading. The rather wide leaves are three-lobed, smooth, glossy, are purple tinted in the autumn and persist quite late in the season. By virtue of their golden yellow colour, spicy fragrance and red tips, the flowers are particularly pleasing. The fruit varies considerably in colour, size and flavour. A palatable jam or jelly can be made, particularly in combination with apple, buffaloberry or rhubarb. The fruit is not spoiled even by fairly severe frost.

##### SIBERIAN RED CURRENT (*Ribes Diacantha*)

Siberian Red Current is a taller and more upright shrub than is Mountain Current. It often grows to a height of five feet, and makes a fine medium sized hedge. It is quite hardy. The leaves are a bright shiny green, the berries red, and the petioles (leaf stalks) are flanked with slender prickles.

##### BUFFALO CURRENT (*Ribes odoratum*)

This is a handsome ornamental valued both for its golden yellow, fragrant, conspicuous flowers and for its black fruit. In the northern



ALPINE CURRANT HEDGE AND MOUNTAIN ASH (See pages 18 and 31).  
(Courtesy of The MacKay Nursery Company, Madison, Wisconsin.)

areas it may kill back severely in some seasons, but recovery is rapid. A large fruited variety, Crandall, is often cultivated for its fruit which may be made into excellent jelly.

Buffalo Currant has a more spreading habit and larger flowers than has Flowering Currant. Twigs and leaf petioles are hairy.

### DOGWOODS (*Cornus* spp.)

#### RED OSIER DOGWOOD (*Cornus stolonifera*)

This native shrub is hardy throughout the settled areas of the Prairie Provinces. It is very useful in winter landscapes on account of its bright red bark. It grows up to six or seven feet in height and is a very familiar figure in native woods, especially along lakesides, river banks and stream beds. All the shrubby dogwoods are well suited to mass plantings in combination with evergreens insuring, as they do, striking winter landscape combinations. Annual spring pruning is desirable because old stems become dull and unattractive. Unless for very special reasons, the natural shape should not be altered by trimming.



RED OSIER DOGWOOD (See page 19).  
(Courtesy of The MacKay Nursery Company, Madison, Wisconsin.)

The small, creamy white flowers are borne in clusters, and the flowering period often extends from late May until freeze up. Ripe berries, which are white, may often be found, in autumn, on bushes still in blossom. The berries are an important source of food for birds and rabbits.

Red Osier Dogwood will do very well in shady parts of the border, but does not suffer in full sunlight.

The variety Goldentwig Dogwood (*C. stolonifera* var. *flaviramea*) has yellow bark on stems and branches and is useful for contrasts in mixed plantings. It, also, should be severely pruned leaving only comparatively young fresh stems. Unless provided with partial shade, it may sunscald badly.



AMERICAN ELDER (See page 22).  
(Courtesy of The MacKay Nursery Company, Madison, Wisconsin.)

#### SIBERIAN CORAL DOGWOOD (*Cornus alba sibirica*)

The chief ornamental value of this dogwood is its bright red winter bark. It may reach a height of six feet, but is not as hardy as is *C. stolonifera*.

*C. alba argenteo-marginata* means 'silver margined white dogwood.' The name is merited by virtue of the leaves which have creamy white edges. The shrub is quite showy; but, unfortunately, none too hardy and must needs be planted, if at all, in moderately sheltered locations.

#### ELDERS (*Sambucus* spp.)

##### EUROPEAN RED ELDER (*Sambucus racemosa*)

European Red Elder is a large coarse growing, very hardy shrub. It grows to eight or ten feet in height and does well in either

partial shade or full sunlight. The large clusters of creamy white flowers and, especially, its scarlet-red berries produce very pleasing effects. It is an excellent large shrub for mass plantings.

The variety Redman, originated at the Dominion Experimental Station, Morden, Manitoba, has deeply and neatly cut leaves, a more compact and shapely type of growth, and is recommended for planting in preference to the parent species. Redman is superior to the Cutleaf Black Elder in hardiness, and its fruit may be used for making jam or pie filling.

#### OTHER ELDERS

American Elder (*S. canadensis*) and its two varieties, Cutleaf American Elder (*S. canadensis acutiloba*) and Golden American Elder (*S. canadensis aurea*) have been used for landscape planting. Indeed, Golden American Elder is probably the best golden-leaved shrub available; but, in more northerly regions, it often kills back to the snow line. It grows to a height of about five feet. All of these American elders are useful for background or mass effects, although the variety Redman of the European Red Elder is considered superior.

The berries of all elders have a strong appeal to many birds and other animals.

#### HONEYSUCKLES (*Lonicera* spp., *Diervilla* spp.)

##### TATARIAN HONEYSUCKLE (*Lonicera tatarica*)

No discussion of prairie shrub material is complete without mention of Tatarian Honeysuckle. It is one of the hardiest and best of the larger ornamental shrubs. Untrimmed, it will grow to a height of about ten feet, but it may also be used as a hedge plant. In addition to being very hardy, it is characterized by a high degree of drought resistance, and will tolerate a certain amount of shading though preferring full sunlight. The fragrant flowers vary in colour from deep rose to pale pink or white, and the bright red berries are prominent in fall and winter. It is very useful in shrub borders, foundation plantings and in trimmed or untrimmed hedges. Periodical renewal pruning is necessary to reduce old rough stems to a minimum.

In addition to the parental species, several varieties are available. They are: *L. tatarica alba* (white flowers), *L. tatarica elegans* (white flowers), *L. tatarica grandiflora* (Bride Honeysuckle), *L. tatarica rosea* (Rosy Tatarian Honeysuckle), *L. tatarica lutea* (yellow berries), *L. tatarica semipalatinsk* and *L. tatarica sibirica*.





TATARIAN HONEYSUCKLE (See page 22).  
(Courtesy of The MacKay Nursery Company, Madison, Wisconsin.)

ALBERT REGEL HONEYSUCKLE (*Lonicera spinosa* *Alberti*)

This is a low, spreading, flopping shrub which is very hardy and is useful as a ground cover for embankments and slopes and in mass plantings. It has narrow leaves and fragrant rosy-pink or purplish blossoms. The berries are whitish or pale purple.

SIBERIAN EDIBLE HONEYSUCKLE (*Lonicera caerulea edulis*)

Siberian Edible Honeysuckle, or Sweetberry Honeysuckle, is very hardy and commonly attains a height of three or four feet. The berries are edible, but not very palatable. Its chief merit is its early profuse bloom. The plants are compact and symmetrical in form and the leaves are characterized by an attractive bluish-green colour. The flowers are pale yellow and the berries dark blue.

**BLACK TWINBERRY (*Lonicera involucrata*)**

This is a native shrub which fits well into massed shrubbery plantings. The flowers, which vary in colour from greenish yellow to scarlet, are borne in pairs in a somewhat cup-shaped 'involucre.' In late July, the involucre turns red and, together with the two purplish black berries, is quite showy. This shrub is also known as Rocky Mountain Honeysuckle and Swamp Honeysuckle.

**AMUR HONEYSUCKLE (*Lonicera Maacki*)**

Amur Honeysuckle is a late blooming, hardy type which, under favourable conditions, will grow to eight or ten feet in height. The conspicuous flowers are fragrant and white, changing to yellowish, and the fruits are dark red and showy. It combines well with other shrubs in mass plantings.

Two varieties of *L. Maacki* also are available. Late Honeysuckle (*L. Maacki podocarpa*) is more spreading, but somewhat less showy and of doubtful hardiness even in Manitoba. *L. Maacki erubescense* has large flowers of flushed pink.



MORROW HONEYSUCKLE (See page 25).  
(Courtesy of The MacKay Nursery Company, Madison, Wisconsin.)

MORROW HONEYSUCKLE (*Lonicera Morrowi*)

Anyone desiring a large (six to eight feet) round-headed shrub to use in dense mass plantings along drives or walks with plenty of space will find Morrow Honeysuckle useful. It is usually broader than tall, the leaves are a pale grey-green colour, the flowers are two-lipped and white, changing to creamy yellow. The fruit is dark red and handsome. Unfortunately, Morrow Honeysuckle kills back; but some hybrids are reputed to be quite hardy. The variety Bella was developed at Dropmore, and is quite hardy in that region.

DWARF BUSH HONEYSUCKLE, BUSH HONEYSUCKLE (*Diervilla Lonicera*)

Bush Honeysuckle is native to Manitoba and Saskatchewan. The common name is inappropriate because the plants spread rapidly by means of underground stems. This characteristic renders Bush Honeysuckle very useful in binding the soil along trails and banks. The yellow flowers are small but conspicuous, the leaves turn reddish in autumn and the fruit is a dry brownish capsule.

(HYDRANGEA) SNOWHILL HYDRANGEA, SNOWBALL  
HYDRANGEA (*Hydrangea arborescens grandiflora*)

Snowhill Hydrangea is considered a useful shrub notwithstanding the fact that it not infrequently kills back to the snow line. In fact, the usual practice is to cut it back to the ground even in areas with relatively moderate climates. It is, however, hardier on rich moist soil than on dry soils. Despite its reputed poisonous properties, white-tailed deer have been observed to feed on it.

INDIGO BUSH, FALSE INDIGO, BASTARD INDIGO,  
NATIVE ACACIA (*Amorpha fruticosa*)

A shrub native to Manitoba and Saskatchewan which has a somewhat loose habit of growth. The leaves are fine, handsome and 'compound' (like Common Caragana, for example). The purple-blue flowers are borne in clustered spikes which vary in length from two to six inches. The flowers appear in June or early July. Although this shrub may kill back somewhat in the more northerly areas, the new growth is highly ornamental.

Two other species are available for planting, namely; Leadplant (*A. canescens*) and Fragrant Indigo (*A. microphylla*); but these are not as highly regarded as is *A. fruticosa*. Fragrant Indigo has reddish purple flowers and—it is fragrant!

## JUNIPERS (*Juniperus* spp.)

Several species of these ornamental evergreens are well adapted to conditions in Western Canada. Some are native. The leaves are scale-like in some species and needle-shaped in others, and the foliage is pungently aromatic. The fruits are berry-like cones containing from one to four seeds. They are commonly planted on banks, rough ground, or in front of other shrubs. Many birds and wild animals relish the fruits.

### COMMON GROUND JUNIPER (*Juniperus communis* var. *montana*)

This is a very hardy, native, low shrub with 'shreddy' bark. Small plants may be moved quite readily, but large ones transplant only with difficulty. The distinguishing mark of this species is the needle-like evergreen leaves which have a broad white band extending down the groove on the lower surface. The 'berries' take two or three years to mature and may remain on the bushes for two or three years thereafter.

### CREeping JUNIPER, GROUND CEDAR, SAVIN (*Juniperus horizontalis*)

On sandy or rocky slopes this native, semi-prostrate, sometimes creeping, shrub is very useful as a ground cover. It also thrives on other types of soil. It is only hardy when a snow cover can be relied upon. The somewhat aromatic scaly leaves resemble those of the white cedar (*Thuja*), so familiar in Eastern Canada. Several different varieties are available.

### PFITZER JUNIPER (*Juniperus chinensis* var. *Pfitzeriana*)

Chinese Juniper (*J. chinensis*) is a tree. Pfitzer Juniper is a pyramidal, somewhat spreading variety of the same species. It is only semi-hardy and, therefore, must be confined to protected locations.

### TAMARISK-LEAVED SAVIN JUNIPER (*Juniperus Sabina tamariscifolia*)

This is a comparatively fast growing, low, spreading shrub, and is said to be hardy at Edmonton, Alberta. The leaves vary from needle-shaped to scaly and the dense foliage is grey-green in colour.

### ROCKY MOUNTAIN JUNIPER, WESTERN RED CEDAR, COLORADO RED CEDAR (*Juniperus scopulorum*)

Rocky Mountain Juniper is a small evergreen tree native to British Columbia, Alberta and southwards. It is not entirely hardy in the Prairie Provinces and rarely exceeds six or eight feet in height without

some killing back. It is a very shapely tree-like shrub and very valuable for landscape purposes.

### LILACS (*Syringa* spp.)

Several species and numerous varieties of lilac are available. They are foremost among the shrubs in prairie plantations, largely because they are hardy, drought resistant and particularly attractive in flower and foliage.

#### COMMON LILAC (*Syringa vulgaris*)

Common Lilac is, beyond a doubt, the most popular of all flowering shrubs. It grows from eight to twelve feet in height and has dark green, glossy leaves which persist until late autumn. There is a wide range of flower colour in both single flowered and double flowered types. The following list contains a few of the popular varieties:

##### Single Flowers:

Buffon—pink.

Hugo Koster—mauve.

Ludwig Spaeth—reddish purple.

##### Double Flowers:

Alphonse Lavallee—blue.

Belle de Nancy—pink.

Charles Joly—crimson to dark purple red.

Edith Cavell—white.

Michel Buchmer—white.

Mme. Lemoine—white.

President Grevy—violet blue.

#### AMUR LILAC (*Syringa amurensis*)

Apparently Amur is hardy everywhere on the prairies, and it makes a fair hedge. The small, fragrant, creamy white flowers are borne in large panicles.

#### JAPANESE LILAC (*Syringa japonica*)

Japanese is a hardy tree lilac which reaches 12 to 20 feet in height. It has a strong perfume to which some people object, though most like it very much. It is the latest blooming of all the lilacs. The creamy white flowers are borne in unsymmetrical clusters often over a foot long. The bark is cherry-like. This species provides dignified and distinctive plant specimens and is well worth planting on large grounds.



COMMON LILAC (See page 27).  
(Courtesy of The MacKay Nursery Company, Madison, Wisconsin.)

#### ROUEN LILAC (*Syringa chinensis*)

The variety Rouen is often incorrectly referred to the species *Syringa rothomagensis*. It is actually a hybrid between *S. persica* and *S. vulgaris*. It grows from seven to ten feet tall and the flowers are purple-lilac, dark red or white and are gathered in loose panicles. This species is not satisfactory for hedges, but it is useful in borders or general plantings.

#### CHINESE LILAC (*Syringa villosa*)

Chinese or late lilac is very hardy and drought resistant. Even the buds are seldom damaged by frost. It grows to a height of from ten to twelve feet, and is a good ornamental for exposed prairie conditions. The bushes are vigorous, rounded, symmetrical and taller than

wide. It has large dull green leaves, and flowers which are late, rosy lilac to whitish in slender upright panicles. While the fragrance is not particularly desirable, this species will make a good screen, untrimmed, and is valuable in groups and masses.

#### PRESTON LILAC (*Syringa Prestoniae*)

This is a hybrid species originating from the cross *S. villosa* x *S. reflexa*. It embraces a large number of excellent hardy varieties which cover a wide range of colour from pale pink to lilac. Some of those available are: Alice, Audrey, Charmain, Desdemona, Elinor (dark red in bud), Francisco, Isabella, Jessica (rich red violet), Miranda, Oberon, Regan, Romeo, Sylvia, Ursula, Virgilia and W. T. Macoun.

The Dominion Experimental Station, Morden, Manitoba, has developed some excellent additional varieties from the same cross; namely: Royalty (rich purple flowers), Coral (clear rich pink free from lilac tints), Nocturne (hazy lilac-blue), Redwine (rich red wine), and Swanee (white, somewhat suffused with pink in early stage).

Varieties produced at Dropmore, Manitoba, from the same parental species are: Hiawatha (deep rose coloured flowers, particularly showy in early bloom), Horace (red), and Handel (pink). Another excellent Dropmore hybrid is Hedin, produced from a cross between *S. villosa* and *S. Sweginzowii*. It is hardy, blooms late in June and is very fragrant. The flowers are white with a tinge of pink.

#### *Syringa oblata dilatata*

This species is quite similar to the Common Lilac, and grows to a height of about six feet. The leaves are tinged with purple in the spring and become entirely purple in autumn. The flowers are borne in loose panicles. This species is not entirely hardy at Beaverlodge, Alberta, but some Dropmore hybrids derived from it are hardy anywhere in our area and do not produce suckers. The following are worthy of extensive planting:

Assessippi—broad-petalled purple flowers.

Evangeline—double flowers of medium size, deep lilac colour.

Excel—very strong, vigorous growing hybrid with single mauve-pink blossoms.

Minnehaha—large purple flowers.

Nokomis—good-sized lilac coloured flowers.

Pocahontas—single dark purple flowers.

## MAPLES (*Acer* spp.)

### AMUR MAPLE (*Acer Ginnala*)

Amur Maple is reasonably hardy throughout the settled areas of the Prairie Provinces, though it does grow better in sheltered locations. The fragrant flowers are produced in June; but its chief attractions are the leaves and fruits (seeds—'winged' like those of Manitoba Maple). The small prettily cut, three-lobed leaves become reddish to coppery tinted in autumn. In late summer, the fruits with their bright red margins are highly ornamental. Since the red leaves persist well, twigs and small branches may be used as indoor winter decorations. The plants have a fairly erect bushy growth often exceeding ten feet in height. They are very effective in massed plantings and high hedges. They also make fine specimens on large lawns and, particularly, town boulevards. Hedges become open at the bottom unless they are carefully pruned and trimmed.

### TATARIAN MAPLE (*Acer tataricum*)

Tatarian Maple is considered somewhat harder than Amur Maple. It is useful as a tall shrub or small tree (12 to 20 feet). The leaves are not so deeply cut as those of Amur Maple; but they, also, turn red in autumn, and the seeds become reddish in late summer. It may be used in tall hedges, windbreaks, shelterbelts and as a small ornamental tree.

## MOCK ORANGES (*Philadelphus* spp.)

These are useful ornamental sweet-scented shrubs. The foliage is light green in colour, and the large white flowers appear in early July. Only the hardy varieties are dependable.

### SWEET MOCK ORANGE (*Philadelphus coronarius*)

The species itself is not reliably winter hardy; but the variety Mrs. Thompson, with fragrant medium sized flowers, is. The bushes commonly attain a height of about four feet. Several useful hybrid varieties have been developed from *P. coronarius*. Noteworthy examples are:

Patricia, with creamy-white flowers and small glossy leaves.  
Hardy.

Purty, which has single cup-shaped flowers about two inches in diameter. Hardy.

Virginal, characterized by large white, double and semi-double flowers, very sweet scented, and blooms over a long period.  
Semi-hardy and should be planted in a protected place.



WATERTON LEWIS MOCK ORANGE (*Philadelphus Lewisii waterton*)

This sub-species is, as the name indicates, native in Southern Alberta and is hardy at least as far north as Edmonton. It varies in height up to about four feet, blooms profusely, and continues to bloom for a long period.

SHRENK MOCK ORANGE (*Philadelphus Schrenkii*)

This is a very hardy species. The variety Thelma, produced at Dropmore, Manitoba, is slightly less hardy than the parent species. It blooms freely on the lower branches, and the flowers are very fragrant.

MOUNTAIN ASH (*Sorbus* spp.)

Mountain Ashes, or Rowan Trees, are very popular in the Prairie Provinces. The small tree forms are useful in background plantings, as specimen plants, and in boulevard plantings. The compound leaves which turn purplish in autumn make a truly striking picture along with the highly reddish or yellowish berries. Unfortunately, the tree forms are more or less subject to sunscald, which may be partially prevented by wrapping the trunks with heavy building paper in the fall. The white bloom in terminal clusters is very attractive in the spring.

AMERICAN MOUNTAIN ASH (*Sorbus americana*)

American Mountain Ash or American Rowan is usually more shrub like than tree like although it may be trained to fifteen to twenty foot trees. The compound leaves have 11-17 leaflets which are bright green and dull above and pale beneath. The flowers are creamy white. The terminal buds are sticky.

EUROPEAN MOUNTAIN ASH (*Sorbus Aucuparia*)

Another name for this species is Rowan Tree. It is highly subject to sunscald in the northern areas. The trees otherwise seem to do well, although they should be planted in a sheltered location. The leaves are hairy on both sides and colour in the autumn. The buds are fuzzy and the fruits are orange red in colour. There are a number of horticultural varieties which have distinctive forms or foliage.

*Sorbus amurensis*

*Sorbus amurensis* is reputed to be quite hardy at Dropmore, Manitoba. It grows to a height of twelve feet and is more upright than the previous two kinds.

#### WESTERN MOUNTAIN ASH (*Sorbus decora*)

Western Mountain Ash is generally more resistant to sunscald than American or European Mountain Ash. It is slow growing and will become 25 feet tall. The 11-17 leaflets are dark green and hairless above. The flowers are in large clusters and are followed by reddish berries somewhat larger than those of American Mountain Ash

#### NINEBARK (*Physocarpus opulifolius*)

The leaves of Ninebark are somewhat similar to those of the High-Bush Cranberry (*Viburnum trilobum*). It is hardy in the southern sections of the Prairie Provinces, may reach a height of five feet, and is a vigorous though straggly shrub. The yellowish bark peels in winter, presenting an unkempt appearance. While not closely related, Ninebark is somewhat similar in size and habit to the spireas, and is considered with them in planning shrubberies. The flowers are in terminal clusters, larger and coarser than those of the spireas. The fruits develop into shining inflated pods which are, at first green, then russet and, finally, purple. Ninebark will withstand some shading, and is best adapted to landscape plantings where the soil is moist and cool.

Golden-Leaved Ninebark (*P. opulifolius luteus*) is valued for its golden coloured foliage; but it is less hardy than is the parent species. Two other semi-hardy species are *P. amurensis*, with leaves and flowers larger than those of Ninebark; and *P. monogynus*, which grows to a height of from two and a half to three feet and has neater, smaller leaves than has Ninebark.

#### PLUMS AND CHERRIES (*Prunus* spp.)

##### FLOWERING PLUM (*Prunus triloba*)

Flowering Plum, also sometimes called Flowering Almond, is a compact low tree, six or eight feet in height, which produces masses of one-inch pink flowers early in the spring. It is hardy and very attractive as a specimen plant.

##### DOUBLE FLOWERING PLUM (*Prunus triloba plena*)

The double form is perhaps the most handsome of all ornamental shrubs grown in the Prairie Provinces. It blooms early in the spring before the leaves have unfolded. It is usually grafted on Canada native plum stock. A fine shrub for specimen or border plantings; but, since it is less hardy than the single form, should be planted in favourable locations.



NANKING CHERRY (See below).  
(Courtesy of The MacKay Nursery Company, Madison, Wisconsin.)

#### NANKING CHERRY (*Prunus tomentosa*)

This is a worthy substitute for sweet cherries. It is very variable in growth habit as well as in colour, size and flavour of the fruit. Although not very hardy, the Nanking Cherry is useful for sheltered places as an ornamental and as a fruit plant. Excellent jelly may be made from the fruit. The variety Drilea and selected seedlings are particularly recommended.

#### DWARF RUSSIAN ALMOND, SIBERIAN ALMOND (*Prunus nana*)

Dwarf Russian Almond is one of the earliest blooming, low growing shrubs suited to the Canadian West. It seldom exceeds three feet in height, and is very hardy and drought resistant. The pink, fragrant

flowers appear before the leaves are fully expanded. Unfortunately, the individual flowers last but a short time, and the total blooming period is brief. Despite the additional drawback of somewhat drab foliage, Dwarf Russian Almond is useful for planting in the foreground of massed shrubberies.

The Dropmore variety, Baton Rouge, has a longer blooming period than has the species.

#### CHINESE BIRD CHERRY (*Prunus japonica*)

As a prairie substitute for the sour cherry, Chinese Bird Cherry has much merit. The seedlings now available are variable in type of foliage, fruit and in other characteristics. Some types have real possibilities as ornamentals and as fruit bearing plants and certainly deserve consideration for sheltered locations.

#### PURPLE-LEAVED SAND CHERRY (*Prunus cistena*)

Bushes of this purple-leaved shrub may kill back in some years even in sheltered places; but such killing is of little consequence, since the new shoots with their attractive purplish red foliage amply justify its existence in the shrub border.

#### ROSE DAPHNE (*Daphne Cneorum*)

Rose Daphne, or Garland Flower, is an evergreen shrub six to twelve inches in height, and about the same in diameter. The rose-pink, sweetly or clove-scented, flowers are borne in terminal heads in late May to early June and again in late summer or early autumn.

For the rock garden, this is a very useful shrub. It should be planted in a sandy well drained soil or in one improved with sand, leaf mould and loam. In exposed locations, it should be covered, in winter, with evergreen boughs or brush to afford protection against winter injury.

#### ROSES (*Rosa* spp.)

A shrub border or landscape planting is not complete without some roses. The enthusiastic gardener will want to try hybrid tea and hybrid perpetual roses, but they are not sufficiently hardy to recommend for general planting. However, there are several shrub or bush roses which are attractive in flower and foliage and which produce beautiful fruits.

#### SCOTCH ROSE (*Rosa spinosissima*)

Scotch, or Burnet, Rose is hardy except in the northernmost regions of the farming area of the West. It is a relatively low shrub, not usually over three feet in height, with prickly flowering branches. The flowers are white, pink or reddish and, occasionally, yellow; fragrant, semi-double, and appear late in June. The fruit is black. This is a good rose for the shrub border and is, also, suitable for low hedges.

The following varieties and hybrids are fairly hardy: Berwick (semi-double, deep rose), Brightness (double, crimson-purple), Dundee (lilac-rose, white reverse), Flavoscans (semi-double, lemon), Globe (semi-double, deep rose), Lady Hamilton (semi-double, creamy white), Lismore (double, blush), Staffa (double, white), Townsend (double, pink), and *R. bicolor nana* (creamy white, dwarf).

#### ALTAI ROSE (*Rosa spinosissima altaica*)

Altai Rose is very hardy throughout the area with which we are concerned and displays a pronounced degree of drought resistance as well. It often grows to a height of seven feet and blooms profusely from top to bottom. The flowers are creamy white and about two and a half inches in diameter. The flower centre consists of a three-quarter inch mass of golden coloured spreading stamens and stigmas. The fruit is dark purple and quite ornamental. The plant is very thorny and it produces suckers rather profusely. The leaves are small and become tinted with purple in autumn. This rose is useful as a specimen or in a shrub border.

#### PEKIN ROSE (*Rosa xanthina*)

Pekin, or Korean, Rose is a fine, yellow flowered, usually hardy shrub. The shoots and branches have prickles all of one kind, and no bristles. The flowers vary from single, through semi-double, to double and are often as much as two inches across. Several different types are available, including Allardi, Lindlayi, Spontanea (single) and X Rugosa.

#### PRICKLY ROSE (*Rosa acicularis*)

Prickly, or Arctic, Rose is a very hardy native shrub suitable for planting on slopes and embankments or in landscape plantings for mass effects. It varies in height from about three feet to a maximum of about five feet. The flowers are solitary, single, pink and are borne on branches two or more years old. The blooming period is short. There



BETTY BLAND (See below).  
(Courtesy of Mr. F. L. Skinner.)

are several botanical varieties which vary in the colour and shape of the hips.

#### SMOOTH ROSE (*Rosa blanda*)

This is the common native rose of Manitoba. The stems are dark red and practically spineless. The plants spread freely from underground rootstocks and soon form a thicket. For this reason, it is put to its best use in massed plantings. The brief flowering period is followed by a crop of round to pear-shaped hips.

The variety, Betty Bland, produced at Dropmore, Manitoba, is an improvement on the parent species. The plants grow from three to six feet in height, the flowers are double and pink in colour. The bright

red branches are an added attraction. Although not entirely hardy in some northern areas, it suffers only occasional injury and is well worth planting.

#### HARRISON'S ROSE (*Rosa foetida Harisonii*)

This is an attractive rose, but occasionally kills back to ground or snow level. The semi-double flowers are lemon yellow in colour and fade to a whitish hue in direct sunlight. The hips are nearly black. Several named varieties have been produced from seedlings.

#### PURPLE LEAF ROSE (*Rosa rubrifolia*)

Due largely to its bright red hips, this species adds greatly to the winter beauty of a shrub border, particularly when planted in front of evergreens. The bronze stems and leaves, also, are striking. The flowers are single, pink and comparatively inconspicuous. Its use is restricted to borders and mass plantings because it is too 'thin' to make a good hedge, and it is not entirely hardy in some areas.

#### RUGOSA ROSE (*Rosa rugosa*)

Except in the more southerly and central regions, the Rugosa, or Japanese, Rose is only semi-hardy. It serves a useful purpose as a low growing plant, particularly in front of larger shrubs. Several varieties and hybrids are available and have an advantage over the parent species in that they bloom more profusely and for longer periods. They vary in flower colour and 'doubleness.'

#### BRISTLY ROSE (*Rosa nitida*)

Bristly, Maratino, or Glistening Rose is a striking two-foot shrub rose appropriate to the foreground of a shrub border. It has red shoots densely armed with slender red bristles. The leaves are brilliantly coloured in autumn. The single, pink flowers are borne sometimes singly and sometimes in twos or threes. The hips are red. The plants are sufficiently compact in habit of growth to render them suitable for hedges.

#### DR. MERKELEY ROSE

The botanical origin of the Dr. Merkeley rose is not clear; but a relationship with the Cinnamon Rose (*R. cinnamomea*) is probable. In any case, it is well worth planting. It is hardy with pink, double and very fragrant flowers. The plants grow to a height of about two feet and, once well established, are very ornamental.



ROSE WASAGAMING (*Rosa rugosa*. See page 37).  
(Courtesy of Mr. F. L. Skinner.)

#### RUSSIAN OLIVE (*Elaeagnus angustifolia*)

This is a small, profusely branching tree which often attains a height of fifteen feet or more. It is adapted to a wide range of soils, will tolerate a certain amount of alkali, is drought resistant and yet will survive considerable periods of flooding, or 'wet feet.' It is not considered entirely hardy in the north, but thrives at Edmonton, Alberta.

Russian Olive is very successful and appealing as a large specimen shrub, and provides beautiful contrasts with other shrubs in mass plantings. The distinctive silvery, grey, somewhat spiny branches in winter are its most characteristic and valuable features. The fruit is yellow with silvery scales and is relished by several different birds.





RUSSIAN OLIVE (See page 38).  
(Courtesy of Mr. Harry Graves.)

### SASKATOON, SERVICEBERRY (*Amelanchier alnifolia*)

Saskatoon is a familiar native plant in the Prairie Provinces. It ranges in height from three and a half to twenty feet, occurs on a wide range of soils and thrives in partial shade or in fully exposed locations. The quality of the fruit has been improved by selection and by good cultivation and manuring. Transplantation is not easy and it is necessary, when moving plants, to trim to the ground level. Propagation can be effected by means of root cuttings strewn along a plowed furrow and covered with soil. Birds are particularly partial to Saskatoon berries. In general, it is suitable for hedges or for foundation plantings about the house by virtue of its habit of growth, white flowers, black or purple fruit and pleasing dark green leaves.

### SALT-TREE, SALT-BUSH (*Halimodendron halodendron*)

Salt-Tree is hardy in most sections of the prairies, thrives in sandy or moderately alkaline soils and is highly resistant to heat and drought. The branches are spiny and silky-hairy, and the very fine foliage is pale grey or blue-green in colour. The slender stalked, rosy-pink, fragrant flowers are characteristic of the pea family (legumes) to which this plant belongs. The fruit is a distinctive bladder-like pod. Because Salt-Bush produces suckers rather freely, it is often grafted on Caragana stock. It is valuable as a component of mixed shrub borders. The variety *purpureum* has rose-pink flowers.

### SEA BUCKTHORN (*Hippophae rhamnoides*)

This silvery leaved shrub belongs to the same family as do the buffaloberries (*Shepherdia* spp.) and silverberries (*Elaeagnus* spp.), and is only about as closely related to the true buckthorns (*Rhamnus* spp.) as is the pig to the horse. It is sometimes called Russian Sandthorn or Siberian Sandthorn. Striking winter effects can be obtained with Sea Buckthorn. Its yellowish orange berries, grey coloured spiny branches and spreading habit of growth provide a marked contrast with an evergreen background and snowy foreground. Depending largely on soil and moisture conditions, the height varies from fifteen feet, or less, up to twenty. Hardiness also varies somewhat though the Siberian forms appear to be quite hardy in the central and southern parts of the Prairie Provinces. Drought resistance and tolerance of moderately alkaline soils are additional desirable features.

Sea Buckthorn is a 'dioecious' species; that is, some plants are male, others female. The former are upright in habit, while the latter are spreading and twiggy. Berries, of course, are borne on female plants only. They are slightly poisonous and left untouched by birds.

Unfortunately, this species produces suckers profusely and regular attention is required to keep them under control.

### *Sibiraea laevigata*

This is a three-foot shrub of secondary importance, but quite decorative in front of taller shrubbery. The blue-green leaves are distinctive in early spring and the branches are purple or reddish brown. The white flowers are borne in branched clusters. Late in the season, the plants become somewhat rough in appearance.

### SILVERBERRY (*Elaeagnus argentea*)

Silverberry is a native shrub belonging, it will be observed, to the same genus as does Russian Olive. It is a very familiar figure on the prairies, known not only for its silvery leaves, but even more for the very pronounced fragrance of the small yellow flowers which is apparent one hundred yards or more to the leeward of the plants.

Other common names, perhaps better known in some quarters than the one we have assigned, are Wolfwillow and Wolfberry.

The plants sometimes attain a height of ten feet, they are straggly and produce many suckers; but are, nevertheless, useful for hedges and mass plantings. As might be expected from the natural habitat of this species, it is very hardy and drought resistant. The fruits, more or less spherical in shape, are dry, dusty, silvery and of little or no value.

### SPIREAS (*Spiraea* spp.)

This genus is familiar to all in the native, as well as in the cultivated state. One or more cultivated species are to be found in almost every town and city garden worthy of the name. Perhaps, some day, we shall be able to say the same about farm and school gardens, though most of the spireas require more moisture than do many other shrubs mentioned in this bulletin and, also, they like plenty of sunshine.

#### GARLAND SPIREA (*Spiraea arguta*)

This is the first spirea to bloom in the spring. The bush is about three and a half feet in height with slender arching twiggy branches. The leaves are small, narrow and bright green, and the white flowers are in clusters. Garland Spirea is excellent for planting in groups or masses about the house, along walks, or in shrub borders. Occasionally, it kills back, but renews itself very quickly.

#### GERMANDER SPIREA (*Spiraea chamaedryfolia*)

Germander Spirea is of value principally because it is hardy, blooms fairly early and has comparatively large flowers not unlike those of Ninebark in general appearance. Under favourable conditions, it will reach four feet in height. The leaves are pale green and toothed.

#### KOREAN SPIREA (*Spiraea trichocarpa*)

Except under the most severe conditions, this species seldom suffers winter injury, but is somewhat more susceptible to drought than are most others. It grows into a dome shaped bush from four to six feet in

height with smooth arching stems, and is particularly suitable for mass plantings in combination with other shrubs. The flowers are white.

**ORIENTAL SPIREA (*Spiraea media serica*)**

At the Dominion Experimental Station, Beaverlodge, Alberta, this is considered the best of the spireas. It varies from three to four feet in height, the leaves are silky-hairy, and the flowers, which appear in late May, are carried in creamy white sprays.

**PIKOV SPIREA (*Spiraea pikoviensis*)**

Another name is Bank o' Snow Spirea. Reports from Alberta emphasize its hardiness and drought resistance. It grows to a height of about four feet and produces white flowers in dense clusters on leafy stalks.

**THREE-LOBE SPIREA (*Spiraea trilobata*)**

By some authors, this species is classified as *S. Blumei*. It is much hardier than Vanhoutte Spirea, which it resembles in many ways. Its height is about three feet, the leaves are pale and slightly three- to five-



VANHOUTTE SPIREA (See page 43).  
(Courtesy of Mr. Harry Graves.)

lobed, and the white blossoms are borne in many-flowered clusters. It can be recommended with confidence.

#### VANHOUTTE SPIREA (*Spiraea Vanhouttei*)

Vanhoutte Spirea is generally considered the most beautiful of all. Unfortunately, it usually kills back severely and is much less reliable than the Pivov, Korean, or Oriental, spireas. The leaves are dark green and attractive, and the clustered white flowers appear early in June. This species should be planted in protected places.

#### OTHER SPIREAS

There are several other spireas available for planting although they generally are not considered as useful as the ones listed previously. These species are *S. betulifolia*, *S. Billardii*, *S. Bumalda* Anthony Waterer, *S. Bumalda Froebeli*, *S. chamaedryfolia* *ulmifolia*, *S. latifolia*, *S. lucida*, *S. salicifolia* and *S. tomentosa*.

The two forms of *Spiraea Bumalda*, namely Anthony Waterer and *Froebeli*, are small shrubs 1½ to 2 feet in height. Generally they are killed back to the ground, but produce attractive bloom from new shoots in late summer. Anthony Waterer has flat flower heads of carmine red and *Froebeli* pink flat flower heads. The remaining species have little value in home plantings.

#### SUMACS (*Rhus* spp.)

##### SMOOTH SUMAC (*Rhus glabra*)

Smooth Sumac is sufficiently hardy and drought resistant for the central and southerly regions of the Prairie Provinces; but in northern areas it kills back each year, as a rule, and renews itself by means of suckers and new shoots. Its chief value is in masses or as low cover among other shrubs where its brilliant red autumn colour can be displayed effectively. The flowers are small and yellow, but the clusters of red berries which persist well into the winter are quite conspicuous. Cut-Leaf Sumac (*R. glabra laciniata*) has pretty, deeply cut, fern-like leaves, and is useful for planting in shady nooks or for massing beneath taller growing shrubs. The berries are popular with a wide variety of birds.

##### LEMONADE SUMAC, ILL-SCENTED SUMAC, SKUNK BUSH (*Rhus trilobata*)

Notwithstanding its somewhat disagreeable odour, Lemonade Sumac is worthy of consideration especially for sandy, gravelly or dry locations. The small three-lobed leaves are highly coloured in the autumn and the bright red berries constitute an added feature.



FIVE-STAMEN TAMARISK (See page 45).  
(Courtesy of Mr. F. L. Skinner.)

### TAMARISKS (*Tamarix* spp.)

Three species of *Tamarix* are useful in sunny, well drained locations for shrub borders by virtue of their distinctive foliage and bloom even when they kill back to the ground, as they often do. The new growth is pleasing indeed with bead-like buds and scaly or needle-like leaves. In the "Introduction," the importance of considering texture when planning shrubberies was stressed. The tamarisks are excellent examples of 'fine' texture and, also, of delicate green colour.

#### ODESSA TAMARISK (*Tamarix odessana*)

Odessa, or Caspian, Tamarisk has small awl-shaped leaves. The flowers are rosy-pink in colour and are carried in large branched clusters.



SEA BUCKTHORN (See page 40).  
(Author's photograph.)

**FIVE-STAMEN TAMARISK (*Tamarix pentandra*)**

This is a six-foot shrub with grey-green foliage which turns yellow in autumn. The rosy pink flowers are clustered on elongated panicles. Five-Stamen Tamarisk is well adapted to sandy soils, and it blooms from midsummer until autumn.

**FOUR-STAMEN TAMARISK (*Tamarix tetrandra*)**

This species has black or purple branches and delicate pink flowers which persist well into the autumn season. The flower clusters occur on one-year-old wood, so trimming should be avoided.



HIGH-BUSH CRANBERRY (See page 48).  
(Courtesy of The MacKay Nursery Company, Madison, Wisconsin.)

#### URAL FALSE SPIREA (*Sorbaria sorbifolia*)

Despite the fact that this shrub is not a spirea, it is also known as Mountain-Ash-Leaved Spirea. This is a very hardy shrub growing up to five feet in height. It suckers freely—a drawback in small shrubberies, but a virtue when used to ‘tie down’ steep slopes or embankments. The leaves resemble those of the Mountain Ash and the clustered flowers are conspicuous, yellowish-white and plume like. The flowers turn brown and remain on the plants throughout the winter.

Another species, neater in habit of growth, has been found hardy at Dropmore, Manitoba. It is *S. Aitchisonii*.





Left: GOLDEN AMERICAN ELDER. Right: VANHOUTTE SPIREA (See pages 22 and 43).  
(Author's photograph.)

### VIBURNUMS (*Viburnum* spp.)

The three species of *Viburnum* included here are native to Manitoba. One of them, *Viburnum trilobum*, extends from New Brunswick to British Columbia. They are large shrubs and not suitable for planting about the house; but, nevertheless, may be used to advantage in borders in combination with other shrubs. Little information on hardiness is available in the northern and western parts of the Prairie Provinces; but they are quite hardy in Manitoba and, as already stated, *V. trilobum* is native throughout the Prairie Provinces.

#### NANNYBERRY, SHEEPBERRY (*Viburnum Lentago*)

Nannyberry is tall (about ten feet) and upright. The large leaves become reddish bronze in autumn. The flowers are white, very showy and borne in large flattish clusters. This is a suitable 'dominant' in shrub borders.



SNOWBALL (See below).  
(Courtesy of Mr. Harry Graves.)

#### HIGH-BUSH CRANBERRY, PEMBINA-BERRY, AMERICAN CRANBERRY (*Viburnum trilobum*)

This is a shade loving species requiring plenty of moisture. As most frequenters of the woods, especially along river banks, know, High-Bush Cranberry becomes strongly aromatic in the autumn. However, it will do well in exposed locations when cultivated, and is suitable for landscape planting. The three-lobed leaves turn red in the autumn and the red fruits are decidedly ornamental as well as useful for making jelly. When used for jelly the fruit should be picked as soon as it begins to turn colour because the pectin content is then at a maximum.

Under cultivation, the plants grow slowly at first, and may not bear fruit for four or five years after transplanting.

European Cranberry (*V. Opulus*) is not nearly as useful as is the High-Bush Cranberry. Snowball (*V. Opulus roseum*) is a beautiful double form of the European Cranberry, and is a very popular ornamental shrub in Eastern Canada. The large white snowball clusters of flowers are very conspicuous. In the West, it should only be planted in well sheltered places.

#### DOWNY ARROW-WOOD (*Viburnum pubescens*)

This species, like the other two, is a prominent and attractive feature of Manitoba woodlands. It is commonly from five to seven feet in height, has dark green leaves, fairly showy clusters of white flowers, and black berries. As a cultivated shrub it is of secondary importance unless there is plenty of space for a wide variety of shrubs.

#### WILLOWS (*Salix* spp.)

There are many different kinds of willow ranging all the way from comparatively small bushes to large trees. The growth habit also varies widely within individual species. The general characteristics are familiar to all westerners. Most species are fast growing and short-lived. They thrive under moist conditions, but often do well in shelter belts in dry areas without extra moisture save that which accumulates in winter as drifted snow. The willows, though short-lived, are very useful as windbreaks if other slow growing, long-lived trees are planted as well.

Many of our winter birds and animals feed on willows, often to the detriment of the latter.

#### BRONZE GOLDEN WILLOW (*Salix alba* var. *chermesina*)

The bark on new twigs of the golden willow turns a fiery red in autumn. This is an important feature, and may be accentuated by severe cutting back each year in order to stimulate an abundance of new growth and a maximum of coloured bark.

#### SIBERIAN WHITE WILLOW, RUSSIAN SILVERLEAF WILLOW (*Salix alba* var. *sericea*)

The Siberian White Willow is useful as a tree, growing, as it may, from 30 to 40 feet, or as a cut back shrub. The silvery foliage is a valuable and conspicuous feature, especially when the plantation provides for a background of evergreens or other dark shrubs or trees.

#### GOLDEN WILLOW (*Salix alba* var. *vitellina*)

The yellow branchlets of this willow are very striking in winter. It should be cut back severely each spring in order to force an abundance of new growth which is much more highly coloured than is the old bark.

#### LAUREL WILLOW (*Salix pentandra*)

Laurel Willow is, perhaps, the most ornamental of all willows. It will grow from 20 to 40 feet in height or, if preferred, it may be main-

tained as a shrub by severe cutting back each spring. It is, also, a good hedge plant. One objectionable feature is the brittleness of the branches, which break off readily in winter and litter the ground. Interesting colour contrasts are provided by catkins, leaves and bark. In northern sections it is not entirely hardy.

## A PRACTICAL CLASSIFICATION

For the convenience of would be planters, we have arranged some of the more popular and reliable shrubs according to characteristics chiefly concerned in their use.

### TOLERATE PARTIAL SHADE

|                       |                                   |
|-----------------------|-----------------------------------|
| Burning Bushes        | Red Osier Dogwood                 |
| Common Ground Juniper | Saskatoon                         |
| Creeping Juniper      | Spireas (better in full sunlight) |
| Currants              | Sumacs                            |
| High-Bush Cranberry   | Ural False Spirea                 |

### HIGHLY DROUGHT RESISTANT

|                          |                             |
|--------------------------|-----------------------------|
| Albert Regel Honeysuckle | Nanking Cherry              |
| Buffaloberries           | Purple-Leaved Sand Cherry   |
| Caraganas                | Russian Olive               |
| Chinese Bird Cherry      | Salt-Tree                   |
| Chinese Lilac            | Sea Buckthorn               |
| Currants                 | Shrubby Cinquefoil          |
| Dwarf Bush Honeysuckle   | Siberian Edible Honeysuckle |
| Dwarf Russian Almond     | Silverberry                 |
| Indigo Bush              | Sumacs                      |
| Junipers                 | Tamarisks                   |
| Morrow Honeysuckle       | Tatarian Honeysuckle        |

### FOR WET PLACES

|                   |         |
|-------------------|---------|
| Red Osier Dogwood | Willows |
|-------------------|---------|

### COLOURFUL BARK

|               |                       |
|---------------|-----------------------|
| Bronze Willow | Red Osier Dogwood     |
| Golden Willow | Siberian White Willow |
| Laurel Willow | Smooth Rose           |

### AUTUMN COLOURS

|                     |                                 |
|---------------------|---------------------------------|
| Bristly Rose        | Purple-Leaf Rose                |
| Burning Bushes      | Red Osier Dogwood               |
| Cotoneasters        | <i>Rosa Rugosa</i>              |
| Flowering Currant   | Saskatoon                       |
| High-Bush Cranberry | <i>Spiraea Bumalda Froebeli</i> |
| Maples              | Sumacs                          |

#### LOW HEDGES

Bristly Rose

Pigmy Caragana

#### MEDIUM HEDGES

Common Caragana  
Glossy Buckthorn

Siberian Cotoneaster  
*Ribes diacantha*

#### TALL HEDGES

Altai Rose  
Buffaloberries  
Chinese Lilac  
Common Caragana  
Common Lilac

High-Bush Cranberry  
Laurel Willow  
Maples  
Saskatoon  
Sea Buckthorn  
Tatarian Honeysuckle

#### SILVER-LEAVED SHRUBS

Buffaloberries  
Russian Olive

Sea Buckthorn  
Silverberry

- - -

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The final draft, including errors or omissions, is the author's responsibility.

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